

T. Adams
U.S.S.N. 09/825,070
Page 4

- AS
- b) exposing and developing the photoresist layer on the substrate to yield a developed photoresist image;
 - c) thermally treating the developed photoresist layer to induce crosslinking of one of more photoresist components.

38. The method of claim 37 wherein the photoresist layer is exposed to patterned radiation having a wavelength of about 248 nm.

REMARKS

The specification has been amended to confirm the priority claim for the application. To conform the claims to the Restriction Requirement, non-elected claims 1-16 and 28-30 have been cancelled without prejudice, and claims 17, 19-22 and 24-27 have been amended. Claims 31-38 also have been added. No new matter has been added by virtue of the new claims. For instance, support for the new claims appears in the original claims of the application.

The amendments made herein are non-substantive and were requested by the Examiner.

Early consideration and allowance of the application are earnestly solicited.

Respectfully submitted,



Peter F. Corless (Reg. No. 38,360)
EDWARDS & ANGELL, LLP
Dike, Bronstein, Roberts & Cushman IP Group
P.O. Box 9169
Boston, MA 02209
Tel: (617) 439-4444
Fax: (617) 439-4170

T. Adams
U.S.S.N. 09/825,070
Page 5

VERSION SHOWING MARKED CHANGES

IN THE SPECIFICATION

At page 1 of the application, immediately after the title, please add the following sentence as the first line of text of the application:

--The present application claims the benefit of U.S. provisional application number 60/194,287, filed April 3, 2000, which is incorporated herein by reference.--

IN THE CLAIMS

17. (amended) A method for treating a microelectronic wafer substrate, comprising:
- a) applying a layer of a positive-acting photoresist composition [of any one of claims 1 through 16] on the microelectronic substrate, the photoresist composition comprising a photoactive component and a polymer that comprises 1) groups reactive to crosslinking; and 2) photoacid-labile groups; and
 - b) exposing and developing the photoresist layer on the substrate to yield a developed photoresist image;
 - c) thermally treating the developed photoresist layer to induce crosslinking of one of more photoresist components.
19. (amended) The method of claim 17 [or 18] wherein the photoresist layer is exposed to patterned radiation having a wavelength of about 248 nm.
20. (amended) The method of claim 17 [or 18] wherein the photoresist layer is exposed to patterned radiation having a wavelength of less than 200 nm.

T. Adams
U.S.S.N. 09/825,070
Page 6

21. (amended) The method of claim 17 [any one of claims 17 through 20] wherein the thermal treatment induces the flow of the developed photoresist layer.

22. (amended) The method of claim 17 [any one of claims 17 through 21] wherein the substrate comprises one or more contact holes.

24. (amended) The method of claim 17 [any one of claims 17 through 23] wherein the photoresist layer is heated after development to at least about 130°C.

25. (amended) The method of claim 17 [any one of claims 17 through 23] wherein the photoresist layer is heated after development to at least about 150°C.

26. (amended) The method claim 17 [of any one of claims 17 through 23] wherein the photoresist layer is heated after development to at least about 160°C.

27. (amended) The method of claim 17 [any one of claims 17 through 26] wherein the photoresist is heated after exposure and prior to development at a temperature of not greater than about 120°C, and the pre-development heating does not cause substantial crosslinking of the photoresist layer.